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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,442	09/23/2003	Darrel Bloomquist	10013887-3	2351
7590 04/27/2004			EXAMINER	
HEWLETT-PACKARD COMPANY			LE, TOAN K	
Intellectual Property Administration			ART UNIT	
P.O. Box 272400			PAPER NUMBER	
Fort Collins, CO 80527-2400			2824	

DATE MAILED: 04/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center">Office Action Summary</p>	<p>Application No.</p> <p>10/668,442</p>	<p>Applicant(s)</p> <p>BLOOMQUIST ET AL.</p>	
	<p>Examiner</p> <p>Toan Le</p>	<p>Art Unit</p> <p>2824</p>	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,8-16,19-21 and 46-59 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 49-52 is/are allowed.
- 6) ☒ Claim(s) 1,2,8,9,12-16,19-21,46-48 and 53-59 is/are rejected.
- 7) ☒ Claim(s) 10 and 11 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>9/23/03</u> . | 6) <input checked="" type="checkbox"/> Other: <u>East search history</u> . |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

In page 1, before "**The Field of the Invention**" insert --**This is a continuation of U.S. application number 10/005,423, now U.S. Patent number 6,661,688--**.

DETAILED ACTION

2. The Preliminary Amendment filed on September 23, 2003 is acknowledged.
3. Claims 1-2, 8-16, 19-21 and 46-59 are presented for examination.
4. Claims 3-7, 17, 18 and 22-45 are cancelled.

Information Disclosure Statement

5. This office acknowledge receipt of the following items from the Applicant:
Information Disclosure Statement (IDS) filed on September 23, 2003.
6. Information disclosed and list on PTO 1449 was considered.

Claim Rejections - 35 USC § 112

7. Claims 2, 47, 53 and 58 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 2, line 2: the term "the layer of magnetic material" lacks proper antecedent basis.

In claim 12, line 1: the term "the magnetic material" lacks proper antecedent basis.

In claims 47, 53 and 58: the phrase "a minimum feature side of a lithography process used to form the magnetic memory device" is indefinite since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. How is the minimum feature side?

Double Patenting

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claims 1, 2, 8, 9, 12-16, 19-21, 46-48 and 53-59 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-11 of U.S. Patent No. 6,661,688. Although the conflicting claims are not identical, they are not patentably

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distinct from each other because it would have been obvious that the write line structure having a barrier layer between the write conductor and a layer of magnetic material, and the magnetic material is selected from the group consisting of NiFe, CoFe, Co, Fe, FeN, CoZrNb, CoTa Nb and CoHfNb, and the end of the pole pieces are shaped to concentrate a magnetic field emanating from the poles.

Allowable Subject Matter

10. Claims 49-52 are allowable over the art of record.
11. Claims 10 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
12. The following is an examiner's statement of reasons for allowance: there is no suggestion or teaching in the art of record disclosing a write line structure for a magnetic memory device comprising a cladding layer having a thickness in the range of 1-50nm or 5-15nm as recited in claims 10, 11; and the cladding layer having a decreasing thickness near ends of the pole pieces as recited in the independent claim 49.

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Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Schwarzl (US. 6,510,078) discloses a write line structure for a magnetic memory device similar to that of applicant.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan Le whose telephone number is (571) 272-1872. The examiner can normally be reached on M-F (8.00AM - 5.30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Elms can be reached on (571) 272-1869. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TL
April 19, 2004



RICHARD ELMS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800